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A special *CRM* supplement for National Park Superintendents, Federal agency cultural resource managers, and State Historic Preservation Officers.

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Preserving the Past and Making It Accessible to Everyone: How Easy a Task?

The guarantee of equal rights for all people is the foundation of a justice system we as a Nation believe in and defend. Yet few advances to make this ideal a reality have ever occurred voluntarily. If people feel they are powerless and ignored they typically join forces to speak out until new levels of social justice are achieved. This was certainly true in the struggle to gain rights for minorities and has been just as true for individuals with disabilities. Although laws were passed in 1968 and 1973 that supported positive change for disabled individuals within the context of federally-funded programs, the Americans with Disabilities Act of 1990 (ADA) cuts a wide swath into territories that were previously untouched by law. This sweeping new reform now says that closing doors to an entire portion of our population is clearly discriminatory—and that current practices *must* change. For cultural resources managers in particular, effecting the major changes called for in the ADA may often seem to be more a "dilemma" than an administrative task. Simply stated, this task is to make our Nation's historic built environment accessible for appreciation by all citizens without causing the destruction of its intrinsic public meaning.

The New Law: Federal Implications

ADA prohibits discrimination against physically, mentally, visually, and hearing-impaired individuals in the areas of employment, public services, transportation, public accommodation and commercial business. Comprehensive civil rights are thus extended to disabled individuals under ADA that, to date, have *only* been required of the Federal Government and federally-funded programs under the Architectural Barriers Act of 1968 and the Rehabilitation Act of 1973, as amended. Now, *all* state and local governments, regardless of their funding sources, must comply with the requirements outlined in the earlier laws and reiterated in the ADA. In addition, private businesses that provide services to the general public cannot discriminate on the basis of disability. This means unassisted physical access must be provided for historic properties listed or eligible for listing in the National Register of Historic Places or designated as historic under state and local laws. This comprehensive new legislation has far-reaching implications for virtually all enterprises which service the public. In short, ADA says that public services or programs must be accessible and usable by *all people equally*.

An area of increasing interest and concern to cultural resource managers and the preservation community-at-large is just how to provide optimum levels of accessibility to facilities and programs which take place in historic properties. *Many Federal agencies have mistakenly assumed that historic properties were exempt from compliance; as a result there has been some confusion, misunderstanding and misinterpretation about what level of accessibility is or is not required to make them accessible to everyone. But official rules and regulations have emphasized that historic properties are not exempt from compliance.*

Undoubtedly, questions will be generated by this new law, particularly as it affects historic properties. Federal agencies and other cultural resource managers would do well to assess or re-assess all properties under their ownership, management or control to ensure that they comply with 1968 and 1973 laws governing accessibility.

The NPS Preservation Mandate

The National Park Service's preservation mandates extend to *all* historic properties on or eligible for listing in the National Register of Historic Places, in both private and public ownership. Through the Historic Preservation Fund administered by the National Park Service, grants are available to properties listed in the National Register, including National Historic Landmarks. In addition, the National Park Service has the responsibility for reviewing and approving commercial rehabilitation projects under the historic preservation tax incentives program, a 20% Federal tax credit available to owners of historic commercial buildings that are substantially renovated according to *The Secretary of the Interior's Standards for Rehabilitation* (one section of the *Standards for Historic Preservation Projects*). The rehabilitation standards call for retaining the property's historic character during rehabilitation work, which includes alterations or new additions. In complying with the intent of both accessibility and historic preservation laws, the issue is not if we should make historic properties accessible, but how to provide the lowest level of access with the lowest level of impact (Figure 1a and b).

It is the experience of the National Park Service that most historic properties *can* be brought into compliance with requirements outlined in the ADA. This article—in question and answer form—outlines ADA's requirements the time frame of the new law, and various types of project work needed to comply. Supplemental source-organizations and other published guidance on accessibility are offered to further assist compliance with the ADA. Until final regulations for the ADA are published later this year, there are uncertainties regarding implementation of the law. For example, some properties are of such architectural and/or historical significance that exact restoration—accurately recovering the form and details of the property and its setting as it appeared at a particular period of time—is essential. In these limited cases, unassisted physical accessibility might be impossible to achieve without jeopardizing the property's historic integrity. How these particular cases will be resolved is still open to question. '

What public services and programs are affected by the ADA?

The requirements of the ADA will affect hiring practices as well as barrier-free access for state and local governments and all private entities that provide accommodations, commercial services, and employment to the general public. (Private residences and religious buildings are not affected by ADA.) There are five sections, or titles, of the act that, together, address the following areas: employment, public service, public accommodations and services operated by private entities, transportation, telecommunications, and miscellaneous provisions, including the regulations by the Architectural and Transportation Barriers Compliance Board (ATBCB).

What is the time-frame for complying with ADA?

The implementation of the ADA will be phased-in over the next several years. Final regulations have not been issued, but are currently being prepared by the Department of Justice, the Department of Transportation, and the ATBCB. But ADA requires that public organizations begin now to assess their deficiencies and to develop a plan for removing architectural barriers from the workplace and from spaces used by the public. In this next year, federally-funded preservation programs should reassess their own levels of accessibility to ensure equal rights issues are being addressed and resolved.

While the ADA primarily addresses new construction completed after January 26, 1992, there are requirements that alterations to existing construction (including historic properties) must also provide reasonable levels of accommodation for individuals with disabilities after that date. For state and local governments, changes should be made as soon as possible, but completed within three years of the effective date of the applicable

regulations. For private businesses employing 15 or more, modifications to the workplace involve providing as complete access as possible for a reasonable cost. Private owners of historic properties must thus provide reasonable levels of accommodation but do not need to meet full physical accessibility standards unless rehabilitation is being undertaken. Since accessibility alterations may affect the significant features of some historic properties, alternative administrative or programmatic approaches to accessibility may be appropriate. Regardless of the type of building, the ADA asks for voluntary compliance immediately for readily achievable modifications.

When removing physical barriers, what does "readily achievable" mean?

The objective of the ADA and various regulations is to remove existing physical barriers that deny participation by disabled people. Removal of physical barriers is only required if it is "readily achievable." 'Readily achievable' means changes that can be effected at a minimal cost and can be implemented in a short time frame. This could include actions such as placing a wooden ramp over a step-up into the building; providing a paper cup dispenser at a water fountain that is too high for a wheel chair user; or widening a stall and installing grab bars in the restroom facilities or installing railings at entrances. However, if physical access is not readily achievable, state and local governments providing public services must *still* make those programs accessible. For instance, programs should be moved to another location. If museum accessibility is not readily achievable, alternative means of experiencing the exhibits must be provided, such as video presentations at an accessible location. Alternative programs parallel the requirements for federally-funded programs and are outlined in the regulations for Section 504 of the Rehabilitation Act of 1973, as amended. For private commercial enterprises, program alternatives to physical access have not been fully outlined, but might include clerks retrieving items on inaccessible upper shelves, or curb service for delivering and picking up dry cleaning, etc.

What type of access is required for all properties (historic and non-historic)?

The physical access requirements for the ADA are similar to those outlined as a result of the Rehabilitation Act of 1973, as amended. These requirements are currently illustrated in the Uniform Federal Accessibility Standards (UFAS), published in the Federal Register in 1984. The ADA will be using an updated version of the UFAS, but until this new document is prepared, the **UFAS is the existing interim guideline**, according to the ATBCB.

It is expected that all properties will be accessible from public bus stops, entrance gates, or specially provided and designated parking spaces, that is, equally negotiable by all visitors or clients *without assistance*. Further, all buildings are to be accessible by a direct and navigable path through the public entrances from the site. Once inside, all services provided for the general public are also to be equally provided to the disabled. This means that restrooms can be used by disabled people and that amenities such as telephones and water fountains must be a correct height for wheelchair use. If there are elevators in the building, they must be equipped with devices to indicate to the deaf or blind which floor they are approaching. Specific performance guidelines for designing or retrofitting buildings will be published by the ATBCB over the next year.

Who will pay for major changes necessary to comply/ with ADA ?

State and local governments are expected to fund modifications out of existing budgets. However; the organization's ability to pay is taken into consideration For

example, if costs to remove architectural barriers are deemed excessive (based on the size and type of operation of the state or local government), an exemption may be sought. Alternative program accessibility, however, must still be provided.

When a privately-owned historic commercial property is undergoing renovation, all areas that are being remodeled must be made accessible to disabled people. New work such as site re-grading would thus necessitate designated parking areas for the disabled as well as appropriate- curb cuts and ramps to the entrance of the historic building. Or, if a third floor were being remodeled, then those offices, corridors, bathrooms, and amenities would need to be accessible. This also means that access must be provided to remodeled interior areas from the entrance of the building. General maintenance, installation of new mechanical and electrical systems, or reroofing are not work areas that trigger compliance. For small buildings, those of less than 3,000 square feet per floor or less than three stories in height, elevators are not required unless the building is used as a retail shopping center or medical offices. Consideration is given to owners who show they would be financially burdened by the cost of making their properties fully accessible. If the changes to make the building accessible exceed 30% of the renovation costs of the building, exemptions for those portions may be issued.

To assist owners with financing the cost of ADA compliance, a Small Business Tax Credit will be available. This tax credit is offered for up to \$5,000 of compliance work and is intended for small businesses with annual gross receipts of \$1,000,000 or less. For all businesses, regardless of size, there is a deduction of up to \$15,000 for allowable expenses. Small businesses qualifying for the tax credit may combine the deduction and the tax credit for expenses exceeding \$5,000 to remove architectural barriers.

What about historic properties that can't meet ADA's physical access requirements?

The ADA recognizes that it may be difficult to achieve full access to historic properties without compromising their integrity and significance. (Currently, the section dealing with historic properties under the ADA's proposed regulations is identical to section 4.1.7 of the UFAS). Under the proposed regulations of the ATBCB, if it is determined by the Advisory Council on Historic Preservation that full compliance will have a negative effect on a historic property, then providing a lesser Level of accessibility may be deemed acceptable. ' These **minimum accessibility requirements take** into account preservation goals established in the Historic Preservation Act of 1966, as amended. **The Secretary of the Interior's Standards for Historic Preservation Projects** call for retention and protection of materials and features that contribute to the property's historical significance. Thus, alterations to achieve accessibility must avoid damage to character-defining materials and features. For properties that cannot be made accessible due to their configuration, topography or exceptional historical significance, interpretative programs must be provided at an accessible location nearby. As emphasized, minimum accessibility requirements for historic properties are already in place for federally-funded programs and are now required by the 1990 ADA for other historic properties in use by the general public:

There should be at least one accessible route using appropriate grades or ramps from a site access point, such as a designated parking space for the disabled, to an accessible entrance.

There should be at least one accessible public entrance into a historic building (appropriate door width, threshold and configuration).

If one public entrance is not achievable, then an alternative building entrance for the disabled should be identified (by signs) and it should remain unlocked during hours of operation.

If toilet facilities are provided for the general public then, at minimum, one accessible unisex unit (sized for wheelchair use and with a privacy latch) must be provided.

All public spaces on at least the level of the accessible entrance should be made accessible to the disabled (appropriate width doors and corridors)

Whenever practical, all areas of the historic property should be accessible.

The ATBCB's proposed regulations for implementing the ADA (Section 4.1.7) call for the Advisory Council to play a major role in the review process for non-federally-funded projects. It is unclear at this time who would be best suited to evaluate these properties for compliance; however, the National Conference of State Historic Preservation Officers has suggested in their comments to ATBCB that State Historic Preservation Officers assume this responsibility.

Signs (both exterior and interior), displays and written information should be legible and situated in an accessible location (generally 44 inches above the floor in order to be seen by a seated person).

In the narrowest of interpretations for historic properties, access must be provided **from the point of access, onto the site and into or through the historic building or historic landscape.** Once at the program destination and depending on the public services offered, different levels of access may be required.

What constitutes access to the building site or historic landscape (parks, gardens, interpretive trails, etc.)?

Access to the historic landscape and ally outdoor interpretive program means unassisted barrier-free movement from arrival to destination. For example, accessibility to public parks or gardens would need to include a continuous route which will allow the individual to experience a range of environments found on the property. Since historic landscapes, like buildings, are composed of character-defining features, careful consideration must be given to avoiding alterations to those features that contribute to the property's significance. In some instances, complete accessibility may be possible by resurfacing a historic path. In other instances, new trails, ramps or parking may be necessary to accommodate the disabled. The location of these new features should be carefully considered to allow for as little change to the historic character of the property as possible (Figure 2). Access to historic landscape programs should be provided for visually and hearing-impaired, as well as physically disabled people. This may call for special signs or maps that feature large type or involve a sign language interpreter. Telecommunication devices for the deaf (TDI) may also be required. For individuals with physical disabilities, any change in grade including stairs and some ramps are formidable barriers. Existing paths or trails should be evaluated to determine if their grade, alignment, width, and surface material are appropriate. Other outdoor features, such as drinking fountains, trash receptacles, and interpretive wayside exhibits should be designed

in such a way that they are easily reachable and understandable by everyone. In historic public parks, recreational facilities including swimming areas, camping grounds, picnic areas, playgrounds, and ball fields, should be constantly evaluated to offer a variety of recreational activities to disabled people. Perhaps one of the best solutions to landscape accessibility is minimizing the distance between arrival and destination points. This may require accessible parking, with curb cuts and a path within easy reach of an historic building, picnic area, or interpretive trail. For some landscapes, a natural or historic site grade that is very steep or composed of massive terracing and steps may prohibit full access without extensive regrading and damage to the character of the property. In this case, partial accessibility to some elevations may be necessary.

What constitutes access to the historic building?

Without being too critical of the past, access into historic buildings is often difficult because earlier design and construction techniques did not usually consider people's varying abilities to the extent they do today. Thus, many buildings were designed with monumental entrance steps; some commercial row buildings have raised English basements with stairs both up and down from grade; and some entrances are directly off the sidewalk with no room for lifts or ramps. Over the past two decades, in particular, technological improvements in assistance equipment and improvements in building design and retrofit have helped to correct earlier inequities. Still, much work needs to be done. According to the ATBCB, in order to enter a building without barriers, there has to be a level platform at the entrance, the threshold must be minimal, doors have to open without difficulty *and* be wide enough to accommodate a wheel chair. The ATBCB proposed minimum requirements for historic buildings are currently found in Uniform Federal Accessibility Standards (UFAS) and are intended to be consistent with the American National Standards Institute (ANSI) requirements which are widely used by state and local building code officials. These current requirements are being revised for use by the ADA and will include provisions for visually and hearing-impaired people.

As outlined in the ADA, access to historic buildings should allow for the use of a primary, public entrance and should not relegate disabled people to a rear service entrance (Figure 3). Lifts, ramps, and grade changes may be used to modify public entrances; however, alternate public entrances are considered if the historic configuration of the primary entrance or the cost of modification is not feasible. NPS guidelines state that when historic building entrances are being altered to provide barrier-free access, it is important to assess the impact on character-defining features. Thus, a careful dovetailing of access and historic preservation requirements is critical. For example, the design, scale and detailing of the historic entrance can provide a basis for deciding whether and to what extent accessibility alterations can be made. If a front entrance cannot be altered without loss of historic significance, then another entrance which is used by the public should be considered (Figure 4). This might involve adapting an existing side entrance, or in some cases, constructing a new secondary entrance that is compatible with the historic character of the property. It is the intent of the ADA that all entrances from grade be accessible. On a steeply sloped site with entrances on two levels, every effort should be made to enter at both levels. It may be necessary to reorient internal functions within a building to make an alternative entrance a principal public entrance with building directories, elevator signs, and other service-information to assist the disabled visitor.

What constitutes access within the historic building to areas that serve the public?

It is expected that, once inside a historic building, the public visitor or employee will have barrier-free access to all services provided to the general public. This includes bathrooms, offices, restaurant dining, etc. Corridors and interior doorways must be wide enough for a wheel chair, modest floor level changes must be ramped, and thresholds must be shallow. Again, these specific dimensions are outlined in the Guidelines prepared by the ATBCB. At a minimum, all services on the accessible entrance floor must be available to disabled people, and to the extent possible, services on other floors should be accessible or provided elsewhere (Figure 5). The extent to which a historic interior can be modified without loss of its historic character will depend on the size, scale, and detailing of the features along the accessible route. Alterations to non-character-defining features are acceptable in order to provide the highest level of access within the building with the lowest level of impact. Similarly, less significant interior spaces can be considered in order to provide necessary amenities on the floor of principal access. In addition, consideration should be given to providing a public space, such as a conference room on the principal floor to be used by others providing services elsewhere in the building. Providing these alternative spaces meets the intent of the ADA, if physical access to all spaces cannot be provided (Figure 6).

Who will handle complaints against owners for noncompliance?

Discrimination complaints may be filed by any individual or organization against any owner of a publicly-used historic property. For example, if a complaint is lodged against a state or local government owner, it is expected that the complaint will be resolved within the agency. If there is no agreed-upon resolution, the complaint is referred to one of nine designated Federal agencies. If a discrimination complaint is lodged against a private owner of a publicly-used historic property, the Attorney General, Department of Justice, is the final administrative arbitrator, filing a lawsuit on behalf of the complainant, if appropriate. (It should be noted that a *private* lawsuit may also be filed at any time by a claimant, by passing the established referral framework.)

If any historic property owner (state or local government or private entity) is found to be in violation of the law, penalties could involve the cost of remedial action. If a complaint is filed with the Attorney General, Department of Justice, money damages may also be awarded. For owners of historic properties who claim that accessibility modifications would destroy the property's significance, administrative efforts must be explored to find alternative program solutions. If equal access or program alternatives cannot be provided, owners should consider limiting all public access to the historic property.

Final Federal regulations regarding complainant procedures under ADA will be issued by the Justice Department and the ATBCB later this year. It is critical that historic property owners know and understand the requirements of their state and local codes for this reason: if there is a conflict between code requirements, the more stringent code applies. If the ADA requirements are more stringent, **historic property owners and managers are urged to follow the requirements outlined in the current Uniform Federal Accessibility Standards to ensure interim compliance with the Americans with Disabilities Act and to avoid complaints of discrimination.**

What is the operable NPS guideline for accessibility in the Park System?

The National Park Service approach to complying with earlier accessibility laws is outlined in its "Cultural Resources Management Guideline" (NPS-28) and is compatible with the intent of the 1990 ADA standards. NPS accessibility policy is further emphasized in a memorandum (11-13189) from the Associate Director, Cultural Resources, regarding accessibility in historic properties in the National Park System. The memorandum states that "access modifications for disabled persons will be designed and installed to least affect

the features of a property that contribute to its significance. Some impairment of some features will be accepted in providing access."

The key to a successful project is determining early in the planning process which areas of the historic property can be altered and to what extent, without causing loss of significance or integrity. In order to do this, historic property owners and managers, working together with preservation professionals and accessibility specialists, need to accurately identify the property's character-defining features and the specific work needed to achieve accessibility. A team approach is thus essential. Although the task of compliance with the ADA and earlier accessibility laws is often complex, with careful planning and positive team work, accessibility solutions can be achieved that are both sensitive to human needs and respectful of those significant features of our Nation's historic properties.

1 In reviewing the ADA, The National Park Service has commented to the Department of Justice that the protection process for federally-assisted historic properties already in place in the National Preservation Act of -1966, as amended, should be extended to protect historic properties from federally mandated, but non-federally-funded or licensed alterations as well. It was suggested to the Department of Justice that a waiver process using the State Historic Preservation Offices in consultation with the Advisory Council on Historic Preservation be established in the implementation of the ADA for those historic properties that cannot meet the minimum ADA requirements due to their historical significance.

2 The ATBCB has no specific system for authorizing exemptions. It is the responsibility of the building owner to maintain accurate financial records in the event that a complaint of non-compliance is lodged.

Further Reading

The following reading list highlights selected publications, including government regulations, standards for compliance, and general guidance for making historic properties accessible.

Access Improvements in Historic Districts: Providing Access to Boston's Historic Newbury Street for People with disabilities. Design Guild Adaptive Environments Center, Boston, Massachusetts, 1989.

Offers solutions to retrofit historic buildings within the historic district for use by the disabled. Useful checklist for surveying areas of non-compliance and implementing accessibility changes. illustrated.

Access to Parks: Guidelines. California Department of Parks and Recreation. California Polytechnic State University San Luis Obispo, California. Publication, Fall, 1991.

Adapted from a variety of published sources with the intent of making all parks and recreation areas in California more accessible for all users. Good suggestions and detailed drawings for paths, trails, boating areas, and other landscape features.

American National Standard Institute: Handicapped Accessibility Standard (ANSI) 117.1. New York, 1986.

Non-Federal national accessibility standards and guidelines used for voluntary compliance, includes many state and local building codes. Features specifications for new and remodeled buildings as well as building site requirements.

Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities. Proposed Rule, 36 CFR, part 1191, January 22, 1991.

Proposed guidelines by the Architectural and Transportation Barriers Compliance Board for implementation of the ADA. Minimum Guidelines and Requirements for Accessible Design (MGRAD) and Uniform Federal Accessibility Standards (U1-'AS), upgraded, but information on retrofitting Federally-owned or assisted properties remains the same. Comments on the proposed rulemaking were due March 25, 1991.

Ballantyne, Duncan S. and Harold Russell Associates, Inc. **Accommodation of Disabled Visitors at Historic Sites in the National Park System.** Park I historic Architecture Division Cultural Resources Management, National Park Service, U.S. Department of the Interior, Washington, DC, 1983. Available from NTIS: Order number: #PB85-103711. Call 703-487-4650 to check on current price.

National Park Service basic method with checklist for evaluating accessibility needs and implementing change to historic sites and structures in the National Park System. Focuses on meeting accessibility requirements while preserving character-defining features. Good discussion of all the laws affecting accessibility and historic preservation prior to 1983.

BOCA International Building Code: Handicapped Access Provisions Illustrated. Buildings Officials and Code Administrators, International, Homewood, Illinois, 1980.

National model code for physical accessibility by disabled persons. In many cases, references state and local building codes.

"Cultural Resources Management Guideline," (NPS-28). Washington, D.C., August, 1985.

NPS management guide discusses service-wide standards for treating, preserving, and using cultural resources. Brief discussion in Chapter 3 on historic building sites accessibility.

Design Guide for Accessible Outdoor Recreation. Interim Draft for Review. Interagency Guidelines Task Group for Accessible Outdoor Recreation, USDA Forest Service, Technology & Development Center, San Dimas, California, 1990.

U.S. Department of Agriculture and U.S. Department of Interior Guidelines for designing and making outdoor recreation and facilities accessible.

Mace, Ronald I., AIA. **Accessibility Modifications; Guidelines for Modifications to Existing Buildings for Accessibility to the Handicapped.** North Carolina Department of Insurance: Engineering and Building Codes Division.

Raleigh, North Carolina, 1976 (reprinted 1979).

Illustrated manual used in North Carolina to implement barrier-free design and retrofit of existing buildings. Primarily for non-historic buildings, but many details and suggestions applicable to historic resources.

Management Policies. U.S. Department of the Interior National Park Service, Washington, DC, 198X.

Physical access for disabled persons in Chapter 5, pg 14. Administrative policy for all NPS-owned or managed properties.

Park, David C., et al. **Interpretation for Disabled Visitors in the National Park Service.** Branch of Special Programs and Populations, National Park Service, U.S. Department of the Interior, Washington, DC, 198f1.

NPS guide for providing interpretive experiences to disabled visitors, includes sight-impaired, hearing-impaired, and mentally-disadvantaged populations.

Parrott, Charles. **Access to Historic Buildings for the Disabled: Suggestions for Planning and Implementation.** U.S. Department of the Interior, Heritage Conservation and Recreation Service Technical Preservation Services Division, Washington, DC, 1980. Available through NTIS, order #PB85-18082f,. Call 703-487-4650 to check current price.

Describes methods to achieve barrier-free access historical buildings that conform with the Department of the Interior's historic preservation standards. Addresses a variety/ of specific accessibility treatments including programmatic and service access in lieu of making architectural changes to highly significant historic structures.

Secretary of the Interior's Standards for Rehabilitation (Rev. 1990) and Guidelines for Rehabilitating Historic Buildings. U.S. Department of the Interior, National Park Service, Preservation Assistance Division, Washington, DC, 1990. Available from the Government Printing Office. Stock number: #024-005-01061-1. \$2.00 per copy. Send check to: Superintendent of Documents, GPO, Washington, DC 20402-9325.

Standards and regulations governing work on historic properties listed or eligible to be listed in the National Register of Historic Places. Used in Preservation Tax Incentives program. Guidelines assist owners and developers in applying the Standards.

Smith, William D. and Tara Goodwin Frier. **Access to History: A Guide to Providing Access to Historic Buildings for People with Disabilities.** Massachusetts Historical Commission, Boston, Massachusetts, 1989.

Case study, shows positive solutions for access to historic sites in the state of Massachusetts. Includes a needs assessment checklist to assist planning a retrofit project. Comprehensive bibliography.

Time Saver Standards for Landscape Architecture. McGraw Hill Book Co., New York, 1988.

Section 240: Outdoor Accessibility edited by Gary Fishbeck, includes section on access for outdoor areas. Historic landscapes not specifically addressed, but the chapter includes responsible information on the size and scale of accessible landscape features as well as turning radius, ramp slopes, and surface textures which could be adapted for other sites.

UFAS Retrofit Manual. Architectural and Transportation Barriers Compliance Board, Washington, DC. Pending publication, Fall 1991.

Official manual commissioned by the ATBCB to explain in detail the technical requirements of the Uniform Federal Accessibility Standards developed as a result of the Architectural Barriers Act of 1968. Written by Barrier Free Environments, Inc., a private consulting group in Raleigh, North Carolina.

Uniform Federal Accessibility Standards (UFAS). Federal Register 49 FR 31528, August 7, 1984.

Guidelines developed for buildings and properties constructed, leased, owned, or altered by Federal agencies and federally-funded programs. Presents uniform standards for the design, construction, and alteration of buildings to comply with the Architectural Barriers Act of 1968, as amended. Section on historic building retrofit (4.1.7) applies to all federally-owned or funded historic buildings.